

AMENDMENTS TO THE CLAIMS

This listing of claims supersedes all prior versions and listings of claims in this application:

LISTING OF CLAIMS:

1. (Currently Amended) A mode-locked fiber laser comprising:
a pair of reflectors, one of the reflectors being formed into a concave configuration relative to the other;

an amplifying fiber disposed as laser medium between ~~[[said]]~~ the reflectors and having therein a waveguide~~[[,]]~~; and

a saturable absorber provided between one end of the amplifying fiber and the concave-configured reflector to envelop an end face of the wave guide at the one end of the amplifying fiber ~~affixed in a direction of one end of said amplifying fiber to one of the reflectors,~~

~~wherein at least the end face of the waveguide at one end of said amplifying fiber is enveloped with said saturable absorber.~~

2. (Currently Amended) A mode-locked fiber laser as set forth in Claim 1, wherein one end of amplifying fiber has a convex configuration relative to the concave-configured reflector,
and

the saturable absorber is formed into a concave configuration relative to the convex-
configured end of the amplifying fiber, the saturable absorber being held between the convex-
configured end of the amplifying fiber and the concave-configured reflector to envelop the end
face of the wave guide comprising a pair of reflectors, an amplifying fiber disposed as laser
medium between said reflectors and having a waveguide, and a saturable absorber disposed
between one of said reflectors and one end of said amplifying fiber, wherein at least the end face
of the waveguide at one end of said amplifying fiber is enveloped with said saturable absorber,
and one of said reflectors is formed in a shape having the focusing point matched on the end face
of the waveguide at one end side of said amplifying fiber, incorporates said saturable absorber,
and is fixed at one end side of said amplifying fiber.

3. (Currently Amended) The mode-locked fiber laser as set forth in Claim 1, wherein the
saturable absorber is affixed to one end of the amplifying fiber and is spaced from the concave-
configured reflector focusing on one end of the wave guide of Claim 2, further comprising:

an in-line fiber Faraday rotator integrated with said amplifying fiber.

Please add the following new claims 4-15:

4. (New) A mode-locked fiber laser comprising:

a pair of reflectors,

an amplifying fiber disposed as laser medium between the reflectors and having an inner wave guide with a cross-sectional area, the cross-sectional area of one end of the wave guide being expanded toward one of the reflectors, and

a saturable absorber provided between one end of the amplifying fiber and one of the reflectors to envelop one end of the wave guide.

5. (New) A mode-locked fiber laser comprising:

a pair of reflectors,

an amplifying fiber disposed as laser medium between the reflectors and having an inner wave guide with a cross-sectional area, and

a saturable absorber provided between one end of the wave guide and one of the reflectors to envelop only the one end of the wave guide.

6. (New) The mode-locked fiber laser as set forth in Claim 5, wherein the saturable absorber is accommodated in said one of the reflectors.

7. (New) The mode-locked fiber laser as set forth in Claim 5, wherein the saturable absorber is accommodated in a space defined by said one end of the wave guide and one end of the amplifying fiber.

8. (New) The mode-locked fiber laser as set forth in Claim 5, wherein the saturable absorber is accommodated in both said one of the reflectors and a space defined by said one end of the wave guide and one end of the amplifying fiber.

9. (New) The mode-locked fiber laser as set forth in Claim 1, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.

10. (New) The mode-locked fiber laser as set forth in Claim 2, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.

11. (New) The mode-locked fiber laser as set forth in Claim 4, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.

12. (New) The mode-locked fiber laser as set forth in Claim 5, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.

13. (New) The mode-locked fiber laser as set forth in Claim 6, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.

14. (New) The mode-locked fiber laser as set forth in Claim 7, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.

15. (New) The mode-locked fiber laser as set forth in Claim 8, further comprising an in-line fiber Faraday rotor integrated with said amplifying fiber.